

In the Claims

Add new claims 35 - 66, as follows:

1-32 (cancelled)

33.(previously presented) An electrical connection device for a machine cable, comprising:

a first connector having a first contact;

a second connector having a second contact, the first connector and the second connector being moveable between a disengaged condition in which the first and second contacts are remote from each other and an engaged condition in which the first and the second contacts are electrically connected; and

a drive for imparting a driving force to drive the first and the second connectors relative to each other whereby the first connector and the second connector move between the disengaged and the engaged positions, the drive comprising a geared arrangement and being arranged to distribute the driving force around at least a portion of at least one of the first and the second connectors.

34.(previously presented) A method of connecting a first electrical connector with a second electrical connector, the first electrical connector having a first contact and the second electrical connector having a second contact, the first connector and the second connector being

moveable between a disengaged condition in which the first and second contacts are remote from each other and an engaged condition in which the first and second contacts are in electrical contact, the method comprising the steps of:

distributing a driving force around at least one of the first and the second connectors;

and

driving the first and the second connector relative to each other using a geared arrangement so that the first connector and the second connector move between the disengaged and the engaged position.

35.(new) The electrical connection device as claimed in claim 33 wherein each of the first and the second connectors comprises a housing and wherein the first connector comprises a first flame path surface and second connector comprises a second flame path surface, the flame path surfaces being arranged so that one of the flame path surfaces surrounds the other flame path surface when the connectors are moved to the engaged position so as to define a flame path between the flame path surfaces.

36.(new) The electrical connection device as claimed in claim 35 wherein the tolerance between the first and the second flame path surfaces are arranged to mate with a tolerance of less than 0.4 mm between them.

37.(new) The electrical connection device as claimed in claim 36 wherein the tolerance is less than 0.2mm.

38.(new) The electrical connection device as claimed in claim 33 wherein the drive has a first drive part associated with the first connector and a second drive part associated with the second connector.

39.(new) The electrical connection device as claimed in claim 38 wherein the first drive part and the second drive part are arranged so that the driving force is distributed substantially equally around at least one of the first and the second connector and wherein the first drive part comprises a ring-like element.

40.(new) The electrical connection device as claimed in claim 39 wherein the second connector comprises an engagement surface which extends at least in part around the second connector.

41.(new) The electrical connection device as claimed in claim 40 wherein the engagement surface surrounds the second connector entirely and the ring-like element of the first connector surrounds the engagement surface entirely.

42.(new) The electrical connection device as claimed in claim 40 wherein the ring-like element and the engagement surface are arranged to engage with each other and to distribute the driving force substantially equally around at least one of the first and the second connector.

43.(new) The electrical connection device as claimed in claim 41 wherein the ring-like element and the engagement surface are arranged to engage with each other and to distribute the driving force substantially equally around at least one of the first and the second connector.

44.(new) The electrical connection device as claimed in claim 33 wherein the drive is arranged to distribute the drive force at discrete positions that at least in part surround at least one of the first and the second connector.

45.(new) The electrical connection device as claimed in claim 38 wherein the first drive part and the second drive part are arranged so that the connectors can be driven relative to each other along a substantially linear path.

46.(new) The electrical connection device as claimed in claim 38 wherein the geared arrangement comprises a threaded drive and a threaded portion and wherein the first drive part is a threaded drive and the second drive part is a threaded portion.

47.(new) The electrical connection device as claimed in claim 40 wherein the geared arrangement comprises a threaded drive and a threaded portion, the first drive part being a threaded drive and the second drive part being a threaded portion and wherein the threaded portion of the geared arrangement forms the engagement surface.

48.(new) The electrical connection device as claimed in claim 47 wherein the threaded portion of the geared arrangement forms a part of the exterior surface of the second connector.

49.(new) The electrical connection device as claimed in claim 48 wherein the threaded portion of the geared arrangement comprises a helical groove that surrounds the second connector and is positioned so that an imaginary axis about which the helical groove is wound is substantially parallel to the movement of the first contact and the second contact relative to each other.

50.(new) The electrical connection device as claimed in claim 49 wherein the ring-like element is a toothed wheel of the threaded drive and the threaded drive comprises and a toothed shaft.

51.(new) The electrical connection device as claimed in claim 50 wherein the toothed wheel of the geared arrangement has a toothed inner peripheral surface and a toothed outer peripheral surface.

52.(new) The electrical connection device as claimed in claim 51 wherein the geared arrangement is arranged so that the toothed shaft engages with the outer peripheral toothed surface of the ring-like toothed wheel.

53.(new) The electrical connection device as claimed in claim 50 wherein the ring-like toothed wheel has a toothed portion on one of its side surfaces arranged for engagement with the toothed shaft.

54.(new) The electrical connection device as claimed in claim 49 wherein the ring-like toothed wheel comprises an inner toothed portion for engagement with the helical groove and the outer periphery of the ring-like toothed wheel has a number of recesses for reception of a lever.

55.(new) The electrical connection device as claimed in claim 51 wherein the inner peripheral toothed surface of the ring-like toothed wheel is arranged to engage with the helical groove.

56.(new) The electrical connection device as claimed in claim 49 wherein the toothed shaft of the geared arrangement is rotatable but captured in position relative to the first connector.

57.(new) The electrical connection device as claimed in claim 49 wherein the geared arrangement is arranged so that a rotational motion of the toothed shaft is translated by the toothed wheel into a translational relative movement of the connectors.

58.(new) The electrical connection device as claimed in claim 57 wherein one of the first and the second connectors has an elongate groove on its outer peripheral surface and is oriented along the imaginary axis and the other connector has a projection that is arranged to slide in the elongate groove.

59.(new) The electrical connection device as claimed in claim 58 wherein the elongate groove and the projection are arranged so that, in use, a rotation of the first connector relative to the second connector is avoided.

60.(new) The electrical connection device as claimed in claim 33 wherein the first contact is a pin and the second contact is a socket.

61.(new) The electrical connection device as claimed in claim 33 wherein the first contact is a socket and the second contact is a pin.

62.(new) The electrical connection device as claimed in claim 59 wherein the socket is one of a plurality of sockets and the pin is one of a plurality of pins.

63.(new) The electrical connection device as claimed in claim 60 wherein the socket is one of a plurality of sockets and the pin is one of a plurality of pins.

64.(new) The electrical connection device as claimed in claim 33 being suitable for delivery of a power of more than 100kW.

65.(new) The electrical connection device as claimed in claim 33 being suitable for the delivery of more than 1MW.

66.(new) A first electrical connector for a machine cable, the connector comprising:

a first contact; and

a drive part comprising a geared arrangement and being arranged for engagement with another drive part of another connector that has a second contact in a manner such that the first connector and the second connector are moveable between a disengaged condition in which the first and second contacts are remote from each other and an engaged condition in which the first and second contacts are in electrical contact, wherein in use at least one of the first and the second drive parts imparts a driving force that is distributed around at least one of the connectors.